

Metropolitan King County Council

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MEMORANDUM

DATE: February 13, 2007

TO: Metropolitan King County Councilmembers

FROM: Cheryle A. Broom, County Auditor

SUBJECT: Internal Control Self-Assessment Audit Survey

Attached for your review is the audit survey report on Internal Control Self-Assessment for King County. The objective of the audit survey was to determine whether the county had established policies defining responsibility for internal controls; to evaluate the state of general internal control and controls for information systems based on agencies' self-assessments; and to compare county practices to practices identified in current literature.

The audit survey results showed that county agencies have a generally positive perception of their internal control practices. However, verification of selected responses demonstrated some inconsistencies. There also appeared to be minimal coordination of policies and procedures, in spite of an existing county policy that established an Executive Audit Committee, which is inactive, to promote an effective internal control environment. We recommended that the County Executive reactivate or reconstitute the Executive Audit Committee and develop a new policy to strengthen the county's internal control environment.

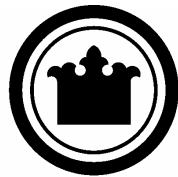
We also asked participating agencies that had a dedicated information technology section or staff to complete an additional survey on internal control for information technology systems. This survey covered practices such as disaster and business continuity planning, security, and backup strategies.

The results of this second survey showed that agencies are less familiar with information technology controls in spite of well-formulated county policies and guidelines in this area. Because the county's policies were recently established in 2005, we expect agencies to improve their information technology controls as they become more familiar with the policies and with tools and guidelines developed by the King County Office of Information Resources Management.

The County Executive concurred with the report's recommendation. The written response is included as an appendix to this report. The auditor's office sincerely appreciates the cooperation received by county agencies during the survey process.

AUDIT SURVEY

**INTERNAL CONTROL
SELF-ASSESSMENT**



King County

Presented to
the Metropolitan King County Council
General Government and Labor Relations Committee
by the
County Auditor's Office

Cheryle A. Broom, King County Auditor
Allan Thompson CPA, Senior Financial Auditor
Wendy Soo Hoo, Senior Management Auditor
Jan Lee, Audit Assistant

Report No. 2006-08
February 13, 2007

Auditor's Office Mission

We conduct audits and studies that identify and recommend ways to improve accountability, performance, and efficiency of county government.

Auditor's Office Vision

We are committed to producing substantive work of the highest quality and integrity that results in significant improvements in accountability, performance, and efficiency of county government. We share a commitment to our mission, to our profession, and to a collaborative work environment in which we challenge ourselves to accomplish significant improvements in the performance of the King County Auditor's Office.



The King County Auditor's Office was created in 1969 by the King County Home Rule Charter as an independent agency within the legislative branch of county government. Under the provisions of the charter, the County Auditor is appointed by the Metropolitan King County Council. The King County Code contains policies and administrative rules for the Auditor's Office.

The King County Auditor's Office provides oversight of county government

through independent audits and other studies regarding the performance and efficiency of agencies and programs, compliance with mandates, and integrity of financial management systems. The office reports the results of each audit or study to the Metropolitan King County Council.

The King County Auditor's Office performs its work in accordance with applicable Government Auditing Standards.



Audit and study reports are available on our Web site (www.metrokc.gov/auditor) in two formats: entire reports in PDF format (1999 to present) and report summaries (1992 to present). Copies of reports can also be requested by mail at 516 Third Avenue, Rm. W-1033, Seattle, WA 98104, or by phone at 206-296-1655.

Alternative Formats Available Upon Request

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Abbreviations

AEP	Executive Policies and Procedures
IT	Information Technology
COSO	Committee of Sponsoring Organizations
OIRM	Office of Information and Resources Management
GAO	Government Accountability Office
OMB	U.S. Office of Management and Budget
GFOA	Government Finance Officers Association

EXECUTIVE SUMMARY

Introduction

The 2006 King County Auditor's Office Work Program includes a survey of the county's internal controls. The purpose of internal control for businesses and government entities, such as King County, is to provide a set of tools that assist managers and departments in operating effectively and efficiently, while reducing the risk of serious problems such as overspending, operational failures, and violations of law.

Results in Brief

We issued a survey on internal control to 33 agencies in county government, including those headed by separately elected officials. The survey results showed that county agencies have a generally positive perception of their internal control practices, but that actual practices may vary from agency to agency.

Because of the increasing importance of information technology in conducting county business, we sent an additional survey on security, access, and business continuity aspects of information technology. The results of this second survey showed that agencies are less familiar with information technology controls in spite of well-formulated county policies and guidelines in this area. The Office of Information Resource Management (OIRM) is working with agencies to improve awareness of sound information technology controls.

Scope and Objectives

The primary objectives of the review were to determine whether the county has established policies defining responsibility for internal controls; evaluate the state of general internal controls and controls for information systems based on county agencies' self-assessments; and to compare county practices to practices identified in current literature.

We initiated the survey because of increasing interest and stricter requirements related to internal control in both the private and public sectors, such as the Sarbanes-Oxley Act and recent revisions to Government Auditing Standards. In light of these developments we believed that it would be prudent to begin assessing county agencies' approaches to internal control and to promote awareness of current control standards. The survey included the county's eight executive departments and five offices headed by separately elected officials.¹

Standards and Laws Related to Internal Control

A widely accepted framework for assessing internal control of an organization was developed by the Committee of Sponsoring Organizations (COSO) and published in 1992 under the title *Internal Control – Integrated Framework*. The COSO framework describes five essential elements of an effective system of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. Many current laws, regulations, rules, and auditing standards either explicitly or implicitly refer to the COSO framework and its five essential components.

In addition, recent corporate and accounting controversies in the private sector led to the passage of the Sarbanes-Oxley Act of 2002. This federal enactment made sweeping changes in the accounting profession, refined auditor independence requirements, and elevated the importance of internal control in publicly traded entities.

Applicability to Government

While the Sarbanes-Oxley Act addresses only concerns in the private sector, the objective to promote accountability, ethics,

¹ In this report, we use the term "agency" to include executive departments headed by the County Executive and offices headed by separately elected officials, i.e., the Prosecuting Attorney, the Assessor, the Sheriff, Superior Court, and District Court.

transparency, and compliance represents the ideals that many citizens hold for government. As a result, government oversight agencies and professional organizations for the public sector, including the U.S. Office of Management and Budget (OMB), the Government Accountability Office (GAO), and the Government Finance Officers Association (GFOA) are starting to recognize the impact and importance of the act's basic concepts.

In 2006, a process was initiated to update the GAO's *Government Auditing Standards*, commonly referred to as the "Yellow Book." The Yellow Book provides professional standards for government auditors and is widely utilized by auditors at the local, state, and federal levels of government. An exposure draft issued in June 2006 substantially expanded the auditor's responsibility for understanding and documenting internal control for both financial and performance audits.

General Survey Results

The survey responses indicate that county agencies generally have a positive perception of their internal control practices. While we did not verify all survey responses nor the effectiveness of internal control, county agencies indicate that they have established and are utilizing a range of internal control practices. However, our verification of select responses demonstrated some inconsistencies in agencies' internal control practices. These may be attributable to minimal coordination of policies and procedures, in spite of an existing county policy establishing an Executive Audit Committee to promote an effective internal control environment. The committee no longer meets regularly and has not updated the county's internal control policies recently. A revised or new policy could include a process for developing guidelines for key internal controls and a shared internal controls lexicon for county agencies. The preparation of a self-assessment tool could also be useful for county agencies

to periodically evaluate their internal controls in relation to these guidelines.

Recommendation

We recommended that the County Executive reactivate or reconstitute the Executive Audit Committee and develop a new policy to strengthen the county's internal control environment. The policy should include a process for developing guidelines and a self-assessment tool for internal controls incorporating best practices and current internal control frameworks.

Information Technology Survey Results

We also asked participating agencies that had a dedicated information technology section or staff to complete an additional survey on internal control for information technology systems. The survey covered practices such as disaster and business continuity planning, security, and backup strategies. Some responses to the questions were lower than expected. We expected a higher percentage of positive responses because the OIRM has established well-formulated county policies and guidelines in recent years. County agencies' practices are likely to improve as they become more familiar with the county's policies on information technology controls, which were established in 2005, and with the tools and guidelines provided by OIRM.

We confirmed, however, that all elected officials had filed a written annual report for 2006, as required by policy, verifying that the organization is in compliance with the information security policy, the privacy policy, and the password management policy. These reports noted that agencies overall complied with these OIRM policies, with particularly high rates of compliance with the information privacy policy. The reports also

identified areas in which organizations can improve, such as network password management and the performance of risk assessments.

Summary of Executive Response

The executive generally agrees with our recommendation to revitalize the Executive Audit Committee and is currently revising King County Executive Audit Committee Policy FIN 15-1 (AEP). The policy update is expected to be completed during the second quarter of 2007.

Summary of Auditor's Comments

The executive's response to our recommendation acknowledges the need to revitalize the Executive Audit Committee and to revise executive policy in this area. Since the planned completion date for the policy update is scheduled for the second quarter of 2007, we believe that a June 30, 2007 deadline for the implementation of our recommendation is reasonable. Recent financial audits of King County conducted by the State Auditor and Deloitte and Touche LLP contain findings and recommendations regarding internal control weaknesses. This office will issue a separate management letter reporting on our review of the financial audits.

See the appendices section for the complete text of the Auditor's Comments.

Government Auditing Standards

This audit survey was conducted in accordance with Generally Accepted Government Auditing Standards, but we did not seek to independently verify survey responses.

Acknowledgement

We appreciate the cooperation of all of the agencies and programs that responded to our surveys and follow-up questions, as well as the office of Executive Audit Services and the Office of Information Resource Management.

1 INTRODUCTION

Overview

The 2006 King County Auditor's Office Work Program includes a survey of the county's internal controls. The survey was conducted to determine the existence, design, and implementation of internal control in county agencies, including departments, major divisions, and offices headed by separately elected officials.² This report seeks not only to present the results of the survey but also to describe what internal control is and its importance to county government.

Background on Internal Control

Activities that Help an Organization Achieve Its Goals and Objectives

Internal control practices are activities that help an organization achieve its goals and objectives. The concept is comparable to the practices that individuals implement in everyday routines to ensure that they conduct their personal business efficiently and effectively. For example, individuals balance their checkbooks on a regular basis, compare purchase receipts with bankcard statements, and protect valuables from theft. Individuals perform these activities to ensure that they meet various personal goals and objectives, such as ensuring their finances are sound and their personal assets are safeguarded.

The purpose of internal control for businesses and government entities, such as King County, is similar in that it provides a set of tools that assist managers and departments in operating effectively and efficiently, while reducing the risk of serious problems such as overspending, operational failures, and

² In this report, we use the term "agency" to include executive departments headed by the County Executive and offices headed by separately elected officials, i.e., the Prosecuting Attorney, the Assessor, the Sheriff, Superior Court, and District Court.

violations of law. Internal control comprises the policies, procedures, and practices that have been established to provide reasonable assurance that a department meets its goals and fulfills its obligations.

The responsibility for establishing a system of internal control lies with an organization's management. Management must determine, based on the organization's size, operational complexity, exposure to risk, and the nature of services provided, how extensive and elaborate the internal control processes need to be. Internal control, synonymous with the term management control, encompasses not only financial considerations but also operational considerations that impact the achievement of an organization's goals, such as performance measurement and strategic planning.

Internal Control Has Limitations

Despite the importance of a sound internal control system, internal control has limitations. A perfect internal control system is unlikely to be achieved because human judgment may be faulty and breakdowns can occur. In addition, internal control practices may be costly to implement. Management must always consider whether the benefit of implementing an internal control practice (i.e., how much the control will reduce the risk of not meeting an objective) is commensurate to the cost.

Standards and Laws Related to Internal Control

COSO

A widely accepted framework for assessing internal control of an organization was developed by the Committee of Sponsoring Organizations (COSO) and published in 1992 under the title *Internal Control – Integrated Framework*. Formed in 1985, COSO is a voluntary private sector organization dedicated to improving the quality of financial reporting through business ethics, effective internal control, and corporate governance. The

committee was established in response to unethical corporate practices during the 1980s.

The COSO framework describes five essential elements of an effective system of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. According to COSO, an internal control system should have controls to support an organization's

- Control environment, including the organization's attitude toward ethics and its managerial tone and style;
- Ability to assess and respond to risks;
- Control activities, or traditional procedural controls such as approvals, reconciliations, segregation of duties;
- Flows of communication and information; and
- Practices for monitoring performance.

Widely Accepted Framework

This COSO model is a widely accepted framework for assessing internal control. Many current laws, regulations, rules, and auditing standards either explicitly or implicitly refer to the COSO framework and its five essential components.

Sarbanes-Oxley Act

Just as inappropriate corporate practices resulted in the establishment of COSO, recent corporate and accounting controversies in the private sector led to the passage of the Sarbanes-Oxley Act of 2002. This federal enactment made sweeping changes in the accounting profession, refined auditor independence requirements, and elevated the importance of internal control in publicly traded entities. The act requires that publicly traded companies not only establish and maintain an adequate internal control structure based on COSO standards but also evaluate the internal control and disclose its effectiveness. In addition, the companies are required to provide an annual report to the Securities and Exchange Commission

from an independent auditor attesting to management's assessment of the effectiveness of internal control.

**Strong Controls Should
Also Be Applied to the
Public Sector**

Applicability to Government

While the Sarbanes-Oxley Act only addresses concerns in the private sector, the objective of the act is to promote accountability, ethics, transparency, and compliance, and represents the ideals that many citizens hold for government. As a result, government oversight agencies and professional organizations in the public sector, including the U.S. Office of Management and Budget (OMB), the Government Accountability Office (GAO), and the Government Finance Officers Association (GFOA), are starting to recognize the impact and importance of the act's basic concepts. Some have already begun to promote additional internal control requirements similar to the Sarbanes-Oxley Act. Others are considering whether such strong controls should also be applied to the public sector or incorporated into government standards and practices.

For example, the recent revision of the federal government's OMB Circular A-123, entitled *Management's Responsibility for Internal Control*, states that federal government agency management is responsible for developing and maintaining an effective internal control system and that internal control is an integral component of an organization's management. The revision also requires that management of a federal agency subject to the Chief Financial Officers Act must sign an "Annual Assurance Statement on Internal Control over Financial Reporting," similar to the new requirement for corporations to disclose the effectiveness of their internal control. (See Appendix 1 for list of affected agencies.)

Government Auditing Standards

The Sarbanes-Oxley Act, as well as the general trend of increased awareness of internal control, may also be influencing changes to government auditing standards. In 2006, a process was initiated to update the GAO's *Government Auditing Standards*, commonly referred to as the "Yellow Book." The Yellow Book provides professional standards for government auditors and is widely utilized by auditors at the local, state, and federal levels of government. An exposure draft issued in June 2006 substantially expanded the auditor's responsibility for understanding and documenting internal control for both financial and performance audits. If the revised draft is adopted, government auditors will be required to place an increased emphasis on internal control.

Reason for Survey

The auditor's office undertook a survey of internal control because of the renewed interest and changing requirements related to controls in both the private and public sectors. In light of these developments, we believed that it would be prudent to begin assessing county agencies' approaches to internal control and to promote awareness of current control standards.

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2 KING COUNTY AUDITOR'S OFFICE SURVEY OF INTERNAL CONTROL

Overview

The auditor's office surveyed county agencies to determine the presence and extent of internal control systems in county government. We issued a separate survey on information technology controls to a number of county offices, and those results appear in Chapter 3 of this report.

Responses Indicate That County Agencies are Utilizing a Range of Internal Control Practices...

Overall, the survey responses indicate that county agencies have established and are utilizing a range of internal control practices. We note, however, that some inconsistencies exist as well. These may be attributable to minimal coordination of policies and procedures, in spite of an existing county policy establishing an Executive Audit Committee to promote an effective internal control environment. The committee no longer meets regularly and has not updated the county's internal control policies. In contrast, in the area of information technology (IT), the Office of Information Resource Management (OIRM) has established clear internal control policies, guidelines, procedures, and self-assessment tools to assist county offices in reducing risks to their systems. OIRM's policy guidance and tools serve as a model for the kind of resources that could be developed for general non-IT internal control for county agencies.

...Inconsistencies Exist as Well

We recommend re-establishing or reconstituting the Executive Audit Committee and updating or developing policies, procedures, guidelines, and other tools to assist county offices in strengthening their internal control systems.

Introduction and Background on Survey of Internal Control

Prepared and Disseminated a Survey on General Internal Controls

The King County Auditor's Office conducted a survey of general internal controls to assess the existence, design, and implementation in county agencies, including departments, major divisions, and offices headed by separately elected officials. In addition, we issued a second survey to 19 county agencies with staff dedicated to overseeing IT. The second survey focused on IT system controls.

Scope and Objectives

The survey scope included the county's eight executive departments and five offices headed by separately elected officials. We also issued the survey to 20 divisions of three large executive departments (Department of Natural Resources and Parks, Department of Transportation, and Department of Executive Services). We excluded the executive's office and the legislative branch from the survey scope.

The primary objectives of the review were to determine whether the county has established policies defining responsibility for internal controls; evaluate the state of general internal controls and controls for information systems based on county agencies' self-assessments; and compare county practices to practices identified in current literature. We did not verify county agencies' responses except to a limited extent in select cases, as discussed in the report.

Serve as a Reference

We intend for this report to provide information to policy-makers and administrators on the status of the county's internal control and to serve as a reference for county agencies on internal control.

Methodology

Our methodology included:

- Reviewing the county's policies on internal controls.
- Conducting a Web-based survey of 33 county agencies on general internal controls and a separate Web-based survey of 19 county agencies on information technology system controls.
- Obtaining and reviewing detailed documentation on four agencies' responses to select survey questions.
- Identifying and reviewing current literature and professional standards on internal control, including Generally Accepted Government Auditing Standards (Yellow Book) and publications from the Government Accountability Office (GAO), Government Finance Officers Association (GFOA), and other jurisdictions.

The County Has an Established Policy on Internal Control and an Executive Audit Committee, but the Policy Appears to Have Lapsed**Committee Has Not Met Regularly Since the Late 1990s**

An executive branch policy was adopted in 1996 that clearly assigns responsibility for the effectiveness of the county's internal controls to the County Executive and executive management.³ The policy also establishes the King County Executive Audit Committee, assigns key members of executive management to the committee, and tasks the committee with supporting the executive branch's internal control environment and providing direction to the County Executive's internal auditor. Although the policy calls for the committee to meet quarterly, the committee has not met regularly since the late 1990s. Since then, the committee has generally made decisions via email to

³King County's Administrative Policies and Procedures; Executive Orders, Policies & Procedures; King County Executive Audit Committee, FIN 15-1 According to the policy, the Executive Audit Committee should be composed of the following members: Deputy County Executive (chair), Chief of Staff, Director of Budget and Strategic Planning, Director of Finance, and three Executive Department directors selected by the Deputy County Executive.

respond to ad-hoc issues raised by the County Executive's Internal Auditor.

However, results of our survey and follow-up work demonstrated that central guidance on internal controls could be beneficial to county operations. Although county agencies generally perceived their internal controls to be comprehensive and operating well, we identified disparities in agencies' understanding and implementation of some internal control.

County Agencies Have Positive Perceptions of Their Internal Control

To broadly assess the county's internal control, we asked 33 county agencies to complete an internal control survey and we received 29 responses. The 28-question survey was adapted from a U.S. Government Accountability Office (GAO) COSO-based self-assessment questionnaire. Each survey question described a specific internal control and county agencies indicated whether they had implemented the control.

Based on the survey results, county agencies generally perceive their internal control practices to be strong. Examples of the internal controls described in the survey questions include:

- Requirements for employees to review the King County Code of Ethics on an annual basis;
- Management's use of performance measures;
- Processes to identify and address any risks to the organization's performance;
- Segregation of key financial duties and responsibilities; and
- Restrictions on access to valuable assets and information.

Positive Response Rates Indicate No Significant or Widespread Control Deficiency... For 27 of the 28 survey questions, positive-response rates were high (79 percent to 100 percent). A majority of responding agencies indicated using the internal controls described. (For the aggregate survey results, refer to Appendix 2.) Only one question had results that were disconcerting, as shown in Exhibit A below.

EXHIBIT A
Results for Survey Question on King County Ethics Code

	All Agencies (29)	Executive Departments (6)	Select Executive Divisions (18)	Separately Elected Officials' Organizations (5)
Does agency require employees to review King County Code of Ethics on an annual basis?	32%	17%	39%	25%

Note: Responses of "Not Applicable" were not included in the totals used in calculating the percentages. Blank responses were counted as "Don't Know."

SOURCE: King County Auditor's Office, Internal Control Self-Assessment Survey

Based on the survey results, only 32 percent of responding agencies reported that they require employees to review the King County Code of Ethics each year.

...In-Depth Follow Up with Agencies Suggest That Internal Control Practices Vary

As noted above, the positive response rates for the remaining 27 questions were high, with between 79 percent and 100 percent of responding agencies indicating that they used the controls described. These high positive response rates indicate that there is no significant or widespread control deficiency and suggest that county agencies generally perceive their internal control systems to be operating well. However, in-depth follow up with four agencies on selected survey questions suggest that internal control practices actually varied across agencies. Guidance and standards could be developed to promote consistency in internal control practices and to enhance management's knowledge about the importance of sound internal control.

Follow-Up Work Showed That the Strength of Internal Control Practices Varied Across Agencies

We followed up select responses to five survey questions in order to conduct a limited verification of survey results. We selected five questions based on their significance to an agency's ability to monitor and improve performance. The five questions and the percentage of all surveyed agencies that responded "yes" are shown below:

- Does management utilize performance measures to assess how well goals are being met?—*97 percent of all agencies responded "yes"*
- Do managers compare actual performance to planned performance?—*97 percent "yes"*
- Does your agency have mechanisms to anticipate, identify, and react to risks that can affect the achievement of goals?—*83 percent "yes"*
- Are policies, procedures, and techniques regularly evaluated to ensure that they are still appropriate and working as intended?—*83 percent "yes"*
- Are data recorded by information and financial systems periodically verified and are discrepancies examined?—*93 percent "yes"*

As one can see, nearly all agencies surveyed responded "yes" to these five questions. Our limited verification of responses to these questions focused on one executive department, two divisions within executive departments, and one organization headed by a separately elected official.

The follow-up generally confirmed the four agencies' responses to the five questions. Three agencies responded positively to all five questions and the fourth agency responded positively to all questions except the question regarding policies and procedures. However, the agencies' actual internal control practices as reported during the follow-up review varied. This was particularly notable for the question on identifying and reacting to risks. Although the four agencies responded "yes" to the question on risk, three of the agencies did not appear to conduct formal, comprehensive risk assessments. The fourth agency had recently conducted a formal and comprehensive risk assessment, but did not assess risks on a regular basis.

The question on risk may also highlight the need for a shared "lexicon" to improve understanding of internal control practices across county agencies. Based on the follow-up results as well as agencies' comments on the original survey, some agencies seemed to have a strong understanding of the importance of identifying and assessing risks that could affect an organization's ability to achieve its goals. However, others appeared to interpret the term "risk" more narrowly to focus solely on liability and claims. These results raise concerns, because current literature on internal control emphasizes the importance of enterprise-wide risk assessments in identifying any threats or opportunities that could impact an organization's performance.

We noted similar issues in following up on the question on whether agencies regularly evaluate their policies and procedures. We asked for supporting documentation from the three agencies that responded "yes" to the question. While two of the agencies indicated that they had established processes for conducting regular, comprehensive reviews of policies and procedures, the third agency did not appear to have a process in place to conduct comprehensive, formal reviews of its policies

and procedures. The third agency was only able to provide examples of individual policies and procedures that had been revised recently.⁴ This example further supports the concern that while many agencies may have responded positively to the survey questions, the depth of actual internal control practices may vary substantially across agencies.

Central Guidance on Internal Control is Not Available to County Agencies

We Found No Central Guidance on Internal Control

Although the executive branch adopted in 1996 a policy intended to strengthen the county's internal control environment, we found no central guidance on internal control.⁵ The lack of central guidance could contribute to some inconsistency in practices among county agencies as indicated by the survey results. At the time of our review, the Executive Audit Committee policy was under review by the County Executive, thus providing an opportunity to develop a policy that will strengthen the county's internal control environment.

A revised policy could include a process for developing guidelines for key internal controls and a shared internal controls lexicon for county agencies. If reinstated or reconstituted, the Executive Audit Committee could serve as a forum for developing these guidelines. The preparation of a self-assessment tool could also be useful for county agencies to periodically evaluate their internal controls in relation to these guidelines. In Chapter 3, we discuss some of the standards, guidelines, and resources developed by the Office of Information Resource Management on internal controls for information systems. Similar tools could be useful in increasing county

⁴This agency's policy and procedure review practices were comparable to the practices of the fourth agency, which had answered "no" to the question on the original survey.

⁵King County's Executive Audit Committee, FIN 15-1.

agencies understanding of general internal controls and in assessing risks associated with existing controls.

Recommendation

The County Executive should revise the Executive Audit Committee policy or develop a new policy to strengthen the county's internal control environment. The new or revised policy should include a process for developing guidelines and a self-assessment tool for internal controls incorporating best practices and current internal control frameworks, such as those referenced in Chapter 1.

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3 INFORMATION TECHNOLOGY SYSTEMS

Reports Show That Improvements Could Still Be Made

Overview

The survey of Information Technology (IT) systems revealed that King County, through the Office of Information Resources and Management (OIRM), developed, instituted, and currently monitors various IT-related internal controls. While OIRM has provided extensive guidance to county agencies in developing and adopting many of the practices addressed in our survey, policy compliance reports show that improvements could still be made in areas, such as network password management and the performance of system-wide risk assessments.

Background

As part of our assessment of the county's internal control, we asked participating agencies that had a dedicated IT section or staff to complete an additional survey on internal control for IT systems. With the accelerated growth of computing systems, information collection, and the daily reliance placed on these systems, we wanted to determine what activities the county has taken to address risks that could affect the operations and performance of county information systems. The survey covered practices such as disaster and business continuity planning, security, and backup strategies.

Survey

The 22-question survey was adapted from a U.S. Government Accountability Office (GAO) COSO-based self-assessment questionnaire. (See Appendix 3 for a copy of the survey.) The survey addressed two types of controls:

- (1) General controls, which affect information systems and technology throughout an enterprise (such as security policies, business continuity procedures, and hardware/software configuration standards).
- (2) Application controls, which increase the integrity of financial and other data systems that implement transactions and feed information into reports (such as procedures for verifying data or restrictions on access to an application).

Each survey question described a specific control activity and asked IT staff to indicate whether they performed the activity or had implemented the control.

Results

For 14 of the 22 survey questions, at least two-thirds of the respondents gave positive responses. However, there were some areas in which the responses did raise some concern (See Exhibit B).

EXHIBIT B	
Percent of Survey Responses Answering “Yes”	
Is a comprehensive assessment of risks to the information system performed on a regular basis?	59%
Is access to system software monitored?	50%
Has management developed a comprehensive contingency plan for service continuity?	65%
Is the comprehensive contingency plan, periodically tested, and adjusted as appropriate?	57%
Note: Responses of “Not Applicable” were not included in the totals used in calculating the percentages.	
SOURCE: King County Auditor’s Office, Internal Control Self-Assessment Survey	

As Exhibit B shows, 59 percent of the respondents indicated that they performed a comprehensive assessment of risks to the information system on a regular basis. In addition, 65 percent of the respondents have developed a contingency plan to ensure

service continuity, as required by county policy, but only 57 percent had actually tested the plan. The results also showed that only half of the surveyed agencies monitored access to system software.

**Expected a Higher
Percentage of Positive
Responses**

County Resources

While we did not independently verify the answers received, some responses to the above questions were lower than expected. We expected a higher percentage of positive responses because the OIRM has established well formulated county policies and guidelines in recent years. Agencies may have misunderstood our survey questions outside the context of the policies and standards developed by OIRM.

OIRM has provided extensive guidance through clear, written policies, standards, guidelines, self-assessment and risk-assessment tools, trainings, and other resources to assist county agencies in developing and adopting many of the practices addressed in our survey. In fact, four policies established in 2005 require county agencies to plan for and take action to ensure sound practices for information security, privacy, password management, and business continuity. Overlaying this policy framework is a governance review structure involving all branches of county government, and this structure assists in policy debate, formulation, and implementation.

Three of the policies, information security, password management, and privacy, have compliance sections that require that county organizations review, at least annually, their processes, procedures, and practices for compliance with the policy. They also require that all elected officials verify in writing to the Chief Information Office that their organization is in compliance with the policy and have identified any areas where

compliance has not yet been achieved.⁶ The business continuity policy does not have a compliance reporting requirement but clearly states that King County organizations are responsible for ensuring that programs comply with the business continuity policy by maintaining IT business continuity plans through updates, testing, exercises, and an annual review.⁷

**All Elected Officials
Have Filed a Written
Annual Report for 2006**

All elected officials have filed a written annual report for 2006, verifying that the organization is in compliance with the information security policy, the privacy policy, and the password management policy.⁸ These reports noted that agencies overall complied with these OIRM policies, with particularly high rates of compliance with the information privacy policy. The reports also identified areas in which organizations can improve, such as network password management and the performance of risk assessments.

Conclusions

Efforts by OIRM noted in this chapter are evidence that King County has begun a methodical process of assessing information technology control deficiencies such as incomplete policies, standards, and oversight. OIRM may serve as a model to other parts of county operations in that it has established clear internal control-type policies relating to enterprise security, privacy, password protection, and business continuity. Further, OIRM has developed guidelines, procedures, self-assessment tools, standards, trainings, and other resources to assist county offices in the implementation of those policies. To assist in the development and implementation of countywide policies OIRM employs a governance structure that includes all three branches of county government. The result is a system of information

⁶ King County Information Security Policy, section 5.5 and King County Information Privacy Policy, section 5.11

⁷ King County Information Technology Business Continuity Policy, section 6.2.2

⁸ King County Password Management Policy: Information Security and Privacy, section 5.7

technology internal controls that provide direction and are intended to reduce risks and to identify areas where improvement is needed.

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APPENDICES

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APPENDIX 1

FEDERAL AGENCIES SUBJECT TO THE CHIEF FINANCIAL OFFICERS ACT OF 1990

- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Education
- Department of Energy
- Department of Health and Human Services
- Department of Housing and Urban Development
- Department of the Interior
- Department of Justice
- Department of Labor
- Department of State
- Department of Transportation
- Department of the Treasury
- Department of Veterans Affairs
- Agency for International Development
- Environmental Protection Agency
- Federal Emergency Management Agency
- General Services Administration
- National Aeronautics and Space Administration
- National Science Foundation
- Nuclear Regulatory Foundation
- Office of Personnel Management
- Small Business Administration
- Social Security Administration

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APPENDIX 2

INTERNAL CONTROL SURVEY RESULTS

	Percent Answering "Yes"			
	All Agencies (29)	Executive Dept. (6)	Select Divisions (18)	Separately Elected Officials' Organizations (5)
1. Does agency require employees to review King County Code of Ethics on an annual basis?	32%	17%	39%	25%
2. Has management established job or position descriptions for all positions?	93%	100%	89%	100%
3. If job descriptions are established do they identify knowledge, skills, and abilities needed to perform the agency's various jobs?	97%	100%	100%	80%
4. Has agency management identified performance measures and data required to track operational performance?	97%	100%	100%	80%
5. Does management utilize performance measures and data to assess how well agency goals are being met?	97%	83%	100%	100%
6. Are written policies and procedures in place for hiring, orienting, training, evaluating, counseling, promoting, compensating, disciplining, and terminating employees?	100%	100%	100%	100%
7. Are mechanisms in place to monitor and review operations and programs?	100%	100%	100%	100%
8. Have goals been established?	97%	100%	94%	100%
9. Is there a relationship and consistency between operational strategies and goals?	100%	100%	100%	100%
10. Are activity-level goals based on and linked with division-level and/or department-level goals and strategic business plans?	97%	100%	100%	80%
11. Has management identified activity-level goals that are critical to the success of division and agency-wide goals?	79%	67%	89%	60%

APPENDIX 2 (Continued)

	Percent Answering "Yes"			
	All Agencies (29)	Executive Dept. (6)	Select Divisions (18)	Separately Elected Officials' Organizations (5)
12. Are all levels of management involved in establishing activity-level goals?	82%	83%	82%	80%
13. Do managers review actual performance against targets and planned performance?	97%	100%	100%	80%
14. Are mechanisms in place to anticipate, identify, and react to risks that can affect the achievement of goals?	83%	67%	83%	100%
15. Has agency established appropriate policies, procedures, and techniques for each of its activities?	83%	67%	83%	100%
16. Are policies, procedures and techniques regularly evaluated to ensure that they are still appropriate and working as intended?	86%	83%	83%	100%
17. Does agency employ physical control to secure and safeguard vulnerable assets?	96%	100%	94%	100%
18. Is access to valuable assets and information minimized and limited to specifically identified staff members?	96%	100%	94%	100%
19. Are valuable assets and information safeguarded from unauthorized access or use?	96%	100%	94%	100%
20. Are key financial duties and responsibilities divided or segregated among different people?	97%	100%	94%	100%
21. Is there an individual responsible for information systems?	86%	67%	89%	100%
22. Is information from internal and external sources incorporated into agency processes for comparing operational performance to established goals?	93%	67%	100%	100%
23. Is pertinent information distributed to the right people to enable them to carry out their duties efficiently and effectively?	90%	100%	83%	100%

APPENDIX 2 (Continued)

	Percent Answering "Yes"			
	All Agencies (29)	Executive Dept. (6)	Select Divisions (18)	Separately Elected Officials' Organizations (5)
24. Does management ensure that effective external communications occur with groups that can have a serious impact on the agency's operations, including budgeting and financing?	97%	100%	94%	100%
25. Does the agency assess and revise practices to continually improve the usefulness and reliability of its communication of information?	97%	100%	100%	80%
26. Are data recorded by information and financial systems periodically verified and discrepancies examined?	93%	100%	94%	80%
27. Do independent auditors or other evaluators regularly provide recommendations to improve internal and management controls?	90%	83%	89%	100%
28. Does the agency take appropriate follow-up actions with regard to audit findings and recommendations?	100%	100%	100%	100%
Note: Responses of "Not Applicable" were not included in the totals used in calculating the percentages. Blank responses were counted as "Don't Know."				

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APPENDIX 3

SURVEY OF INFORMATION TECHNOLOGY INTERNAL CONTROL

This King County Auditor's Office survey is gathering information about the nature of internal control across the county. We are seeking answers to specific questions about internal control over information technology within individual departments, agencies, and offices.

These questions should be completed by an individual or individuals who have responsibility for the organization's information technology (IT) system(s). For those questions that do not apply to your entity, please mark "not applicable." Your reply to this survey is important and will allow us to obtain an overall picture of the county's internal control. You may need to consult with additional management in order to respond and we may request documentation to better understand responses to select questions.

Please note that any report we issue will include only aggregated response data or provide examples without identifying specific individual agencies. Individual agencies' responses will not be reported publicly. Individual agencies' survey results may be used internally by our office in identifying areas for possible further inquiry and follow up.

We would appreciate receiving a response to this survey as soon as possible. If you experience any difficulty in completing the survey, please contact Allan Thompson at 296-0378.

Name of person completing survey _____
E-mail address _____

I. GENERAL CONTROL ACTIVITIES

General control (or infrastructure control) includes the structure, policies, and procedures that apply to the overall computer operations and establish the environment in which the applications systems operate. It applies to all information systems, including mainframe, minicomputer, network, and end-user environments. General control includes, but is not limited to policies and practices related to IT administration, access, and authentication; separation of key functions; systems acquisition and implementation; change management; data recovery and backup; and business continuity.

Security Management Program

1. Is a comprehensive assessment of risks to the information system performed on a regular basis? (Please indicate in the comments field how frequently a risk assessment is performed.)
2. Have security-related personnel policies been implemented?

Access Control

1. Are all authorized users identified?
2. Have controls been established to prevent or detect unauthorized access?

APPENDIX 3 (Continued)

Application Software Development and Change Control

1. Is there a policy or procedure for authorizing information system processing features and program changes?
2. Is all new or revised software thoroughly tested and approved?

System Software Control

1. Is access to system software controlled?
2. Is access to system software monitored?
3. Are changes to the system software controlled?

Segregation of Duties

1. Have access controls been established to enforce segregation of duties? (Segregation of duties means that no one individual has complete control of incompatible processing functions. For example: the person who enters vendor invoices into the system does not have the capability to access purchasing and receiving information).

Service Continuity

1. Have steps been taken to prevent potential damage and interruption through the use of backup procedures?
2. Has management developed a comprehensive contingency plan for service continuity?
3. Is the comprehensive contingency plan, periodically tested, and adjusted as appropriate?

II. APPLICATION CONTROL ACTIVITIES

Application control pertains to the scope of individual business processes or application systems. Application control refers to the structure, policies, and procedures designed to help ensure completeness, accuracy, authorization, and validity of all transactions during application processing. It includes routines contained within the computer program code as well as the policies and procedures associated with user activities, such as tests or other measures performed by the user to determine that the data were processed accurately by the computer. They include such controls as separation of business functions (e.g., creating separate steps for initiating and authorizing transactions), balancing of processing totals, creating logs of processed transactions, and error reporting.

Authorization Control

1. Do data entry terminals have restricted access?
2. Is exception reporting used to ensure that all data processed is authorized?

APPENDIX 3 (Continued)

Completeness Control

1. Are all authorized transactions entered into and processed by the computer?
2. Are reconciliations performed to verify data completeness?

Accuracy Control

1. Does the design of the data entry features contribute to data accuracy?
2. Can erroneous data be identified?
3. Are erroneous data promptly corrected?
4. Are there output reports that are reviewed to help maintain data accuracy and validity?

Control Over Integrity of Processing and Data Files

1. Do programs include routines to verify that the proper version of the computer file is used?

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RECOMMENDATION & IMPLEMENTATION SCHEDULE

Recommendation: The County Executive should revise the Executive Audit Committee policy or develop a new policy to strengthen the county's internal control environment. The new or revised policy should include a process for developing guidelines and a self-assessment tool for internal controls incorporating best practices and current internal control frameworks.

Implementation Date: They plan to complete the policy update during the second quarter of 2007.

Estimate of Impact: The implementation of the recommendation will help provide a set of tools that will assist agencies in operating effectively and efficiently, while reducing the risk of serious problems such as overspending, operational failures, and violations of law. In addition, it could help provide reasonable assurance that county agencies are meeting their goals and fulfilling their obligations.

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EXECUTIVE RESPONSE



King County

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King County Executive
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TTY Relay: 711
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January 4, 2007

Cheryle A. Broom
King County Auditor
Room 1020
COURTHOUSE

Dear Ms. Broom:

Thank you for the opportunity to respond to your proposed final report – Audit Survey of Internal Controls. My staff and I recognize that establishment and maintenance of effective internal controls are critical management responsibilities and we appreciate the survey information presented in your report. We will use this information as we continue our efforts to strengthen internal controls for all functional areas.

I appreciate that you noted the efforts of the Office of Information Resource Management (OIRM) in improving agency awareness and implementation of effective information technology controls. I also appreciate your favorable comments concerning OIRM's methodical process of assessing information technology deficiencies, and its clear internal control policies, standards and oversight.

I generally agree with your recommendation to revitalize the Executive Audit Committee as a focal point for developing new policy to strengthen the county's internal control environment. In that regard, King County Executive Audit Committee Policy FIN 15-1 (AEP) is presently undergoing revision and your recommendations will be considered as we update the policy. We plan to complete the policy update during the second quarter of 2007.

If you need further information about our efforts to continuously strengthen internal controls please contact David Lawson, Manager, Executive Audit Services, at 206-205-0780. Thank you.

Sincerely,

Ron Sims
King County Executive

cc: Bob Cowan, Director, Office of Management & Budget (OMB)
David Lawson, Manager, Executive Audit Services, OMB
Sheryl Whitney, Assistant County Executive
Paul Tanaka, Director, Department of Executive Services
David Martinez, Chief Information Officer, Office of Information Resource Management



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AUDITOR'S COMMENTS TO EXECUTIVE RESPONSE

The executive's response to our recommendation acknowledges the need to revitalize the Executive Audit Committee and to revise executive policy in this area. The executive plans to update the policy update by the second quarter of 2007, which is reasonable.

Recent financial audits of King County conducted by the State Auditor and Deloitte and Touche LLP contain findings and recommendations regarding internal control weaknesses. Some of the findings substantiate the issues identified in this report, such as limited monitoring of user access to information technology systems and the absence of business continuity plans.

This office will issue a separate management letter reporting on our review of the financial audits.

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